REMARKS

Claims 21-50 are now pending in the application. Claims 21, 24-28, 30, 37-40 have been amended. Claims 1-20 have been cancelled. Claims 45-50 are new. Support for the foregoing amendments can be found throughout the specification, drawings and claims as originally filed.

REJECTION UNDER 35 U.S.C. §112

Claims 21-44 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

As indicated in the advisory action dated November 26, 2010, the Examiner has withdrawn the rejection to claims 21-44 under 35 U.S.C. §112.

REJECTION UNDER 35 U.S.C. § 103

Claims 21-24, and 44 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 7,031,722 B2, Naghian, in view of US 2004/0203914 A1 Kall. This rejection is respectfully traversed.

Applicant has amended claim 21. Applicant respectfully submits that Naghian does not teach or suggest all the limitations of claim 21. Naghian at best appears to show certain features for positioning a mobile station and using mobile originated location request (MO-LR) for circuit calls. An initially idled MS sends a CM (Connection Management) Service Request indicating a request for an MOC (mobile originated call) to a 3G-MSC via a RNC. The 3G-MSC may initiate procedures to obtain the location of the

MS. Depending on local regulatory requirements, the 3G-MSC may send a MAP subscriber location report to a GMLC.

Applicant respectfully submits that Naghian fails to teach or suggest at least the limitations sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE, receiving, by the CN, the location estimate of the target UE from the V-GMLC and sending, by the CN, the location estimate of the target UE to the target UE recited in claim 21.

Claim 21 is directed to a network architecture that is different from that of Naghian and ETSI standard for GSM phase 2+.

The network architecture of claim 21 relates to a Central Network and a Visited Gateway Mobile Location Center (V-GMLC) of the target UE. The network architecture of Naghian relates to a 3G-MSC/VLR and a GMLC. The V- GMLC of the target UE of claim 21 is different the GMLC of Naghian. For example, the GMLC of Naghian may be associated with any MS such as a requester MS or a target MS. Naghian fails to teach or suggest any relation between the GMLC and the MS. Furthermore, ETSI standards for GSM phase 2+ also fail to teach or suggest any relation between the GMLC and the MS.

Further, the procedure for transmitting the MAP_SUBSCRIBER_LCS_RESPO of Naghian differs from the claimed features for transmitting the location estimate of the target UE of claim 21. In order to transmit the location estimate of the target UE, claim 21 discloses the limitations sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE, receiving, by the CN,

the location estimate of the target UE from the V-GMLC and sending, by the CN, the location estimate of the target UE to the target UE.

In contrast, Naghian at best shows that the 3G-MSC/VLR directly sends a CM_LCS_REQUEST_ACK to the MS and a MAP_SUBSCRIBER_LCS_RESPO to the GMLC, but does not disclose that the GMLC sends the MAP_SUBSCRIBER_LCS_RESPO to the ME.

Therefore, the procedure for transmitting the MAP_SUBSCRIBER_LCS_RESPO of Naghian differs from the claimed features for transmitting the location estimate of the target UE of claim 21. The claimed features require that the CN sends the location estimate of the target UE to the Visited Gateway Mobile Location Center (V-GMLC) of the target UE, and then, the V-GMLC sends the location estimate of the target UE to the target UE via the CN.

Furthermore, Naghian at best shows that the 3G-MSC/VLR sends two types of messages, i.e. CM_LCS_REQUEST_ACK and MAP_SUBSCRIBER_LCS_RESPO, to MS and GMLC, respectively. In contrast, claim 21 requires a single type of message, i.e. the location estimate of the target UE.

Thus, Naghian does not teach or suggest the limitations sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE, receiving, by the CN, the location estimate of the target UE from the V-GMLC and sending, by the CN, the location estimate of the target UE to the target UE of claim 21.

Furthermore, Naghian at best shows that the target UE specifies address information of a GMLC of the target UE in the request. This leads to a technical problem that if the current located CN of the target UE and the GMLC specified by the target UE are in different networks, the current located CN of the target UE may not be able to access the GMLC. That is to say, the CN would not use the GMLC of its network (i.e. a V-GMLC to the target UE), but rather use the GMLC specified in the request (e.g. the H-GMLC of the target UE).

In contrast, claim 21 discloses that the V-GMLC is limited by the target UE, the V-GMLC of the target UE sends the location estimate of the target UE to the CN, and the CN sends the location estimate of the target UE to the target UE. Thus, one or more embodiments of claim 21 may address the above mentioned technical problem.

Therefore, Naghian does not teach or suggest the limitations sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE, receiving, by the CN, the location estimate of the target UE from the V-GMLC and sending, by the CN, the location estimate of the target UE to the target UE of claim 21.

The Examiner asserts that one skilled in the art would appreciate that the Naghian's GMLC can be a visited GMLC (V-GMLC) or a home GMLC (H-GMLC) depending upon where the UE is located at the time. When the UE is outside its own network (i.e roaming to or visiting a foreign network), this GMLC can then be the GMLC associated with the network the UE is visiting, i.e. a Visited GMLC.

Applicant respectfully traverses the Examiner's assertion. Applicant respectfully submits that Naghian at best only shows a GMLC (Home PLMN or other PLMN) and 3G-MSC. The 3G-MSC may have access to the GMLC for transforming the subscriber information needed (e.g., for authorization and positioning access routing).

Even if one skilled in the art did appreciate that the Naghian's GMLC can be a visited GMLC (V-GMLC) or a home GMLC (H-GMLC) depending upon where the UE is located at the time, Naghian still would not teach or suggest how to send the location estimate. Naghian merely discloses the 3G-MSC returns the location estimate to the GMLC. For example, in Naghian, the 3G-MSC may send the location estimate to a home GMLC (H-GMLC), a GMLC specified by the UE, or a GMLC specified in one request, and so on. Therefore, Naghian has a same or similar technical problem with that solved by claim 21. For example, specification page 4, line 24 to page 5, line 20 of the present application describe that

> The aforesaid GMLC can be specified by the target UE in the LCS MO-LR Location Services Invoke, or be randomly allocated by the CN according to GMLC address information stored in the CN. In practical network operation, when the address information of the GMLC is specified by the target UE, if the current located CN of the target UE and the GMLC specified by the target UE do not belong to the same network, the current located CN of the target UE may not be able to access the GMLC; when the address information of the GMLC is allocated by the CN, herein according to the stored GMLC address information, the CN can allocate a GMLC that the CN can directly access, but the GMLC may not be able to access the specified requester, i.e. the GMLC that can directly access the requester is not the GMLC allocated by the CN. Thus, the existing MO-LR process can

not provide the requester specified by the target UE with the location information of the target UE, which greatly limits the development of the MO-LR service.

Hence, Applicant respectfully submits that Naghian does not teach or suggest the limitations sending, by the CN, the location estimate of the target UE to a Visited Gateway Mobile Location Center (V-GMLC) of the target UE, receiving, by the CN, the location estimate of the target UE from the V-GMLC and sending, by the CN, the location estimate of the target UE to the target UE of claim 21 because Naghian does not disclose that the 3G-MSC sends the location estimate to a visited GMLC (V-GMLC).

For at least the above noted reasons, Naghian fails to teach or suggest all the limitations of claim 21. Thus, Applicant respectfully requests withdrawal of the rejection of independent claim 21.

Dependent claims 22-24 depend directly or indirectly from independent claim 21 and incorporate all of the limitations thereof. Accordingly, for the reason established above as well as the additional limitations, Applicant respectfully submits that claims 22-24 are not obvious in light of the suggested combination and respectfully requests for allowance of these claims.

Claims 25-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Naghian, in view of Kall, and further in view of US 7,277,711 B2, Nyu (hereinafter Nyu). This rejection is respectfully traversed.

Similar to the arguments above with respect to claims 21-32, and 43-44, dependent claims 25-32 and 43-44 depend directly or indirectly from independent claim 21 and

incorporate all of the limitations of independent claim 21. Accordingly, for the reasons established above as well as the additional limitations, Applicant respectfully submits that claims 21-32, and 43-44 are not obvious in light of the suggested combination of cited art and respectfully requests allowance of these claims.

Independent claim 33 discloses a method for processing location information request initiated by a User Equipment, comprising the CN sending the location estimate of the target UE to a V-GMLC of the target UE and the V-GMLC sending the location estimate of the target UE to the target UE via the CN. Arguments similar to those with respect to claim 21 apply to Claim 33. Thus, claim 33 should be allowable as well. Accordingly, for the reason established above as well as the additional limitations, dependent claim 34-42 are not obvious in light of the suggested combination. Applicant respectfully requests allowance of these claims.

NEW CLAIMS

Claims 45-50 are new. Applicant believes that claims 45-50 also define over the art cited by the Examiner.

For example, independent claim 45 is directed to a method for processing location information request initiated by a User Equipment, comprising: receiving, by a visited gateway mobile location center (V-GMLC) of a target UE, a location estimate of the target UE from a central network (CN) after the CN receives a request for location information from the target UE, and the obtains the location estimate of the target UE; and sending, by the V-GMLC, the location estimate of the target UE to the target UE via the CN.

Claim 45 is directed to a method performed by the V-GMLC, which corresponds to claim 21. Thus, claim 45 and its dependent claims 46-50 define over the art cited by the Examiner for similar reasons as those presented above.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9896H-000086/US/NP from which the undersigned is authorized to draw.

Dated: January 3, 2011

Respectfully submitted,

By /Joseph M. Lafata/
Joseph M. Lafata
Registration No.: 37,166
HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1223
Attorney for Applicant

15884282.5